

BAB VI KESIMPULAN

6.1 Kesimpulan

- a. Perlakuan proporsi telur:isolat protein kedelai memberikan pengaruh nyata ($\alpha = 5\%$) terhadap sifat kimia (kadar air), sifat fisik (volume spesifik dan *firmness*), dan sifat organoleptik (kesukaan terhadap warna *crumb* dan rasa *rice cake*).
- b. Perlakuan proporsi telur:isolat protein kedelai tidak memberikan pengaruh nyata ($\alpha = 5\%$) terhadap sifat organoleptik (kesukaan terhadap kelembutan dan *moistness*) *rice cake*.
- c. Semakin besar proporsi isolat protein kedelai dibanding telur, semakin besar kadar air dan *rice cake* semakin *firm*, namun semakin kecil volume spesifik dan tingkat kesukaan panelis terhadap warna *crumb* dan rasa *rice cake*.
- d. Proporsi telur:isolat protein kedelai sampai dengan 85%:15% merupakan perlakuan yang masih disukai oleh konsumen.

6.2 Saran

Perlu dilakukan penelitian lebih lanjut mengenai preparasi isolat protein kedelai sebagai pembentuk buih dalam adonan *rice cake* untuk meningkatkan sifat fisik dan kimia *rice cake* sehingga proporsi isolat protein kedelai dibanding telur dapat ditingkatkan.

DAFTAR PUSTAKA

- Akesowan, A. 2007. *Effect of Konjac Flour/Soy Protein Isolate Mixture on Reduced-fat, Added Water Chiffon Cakes*. Assumption Univ. J. Technol., 11(1), 23-27.
- Alleoni, A. C. C. 2006. *Review: Albumen Protein and Functional Properties of Gelation and Foaming*. Sci. Agric., 63(3), 291-298.
- Anton, A. A. dan D. Artfield. 2008. *Hydrocolloids in Gluten Free Breads: A Review*. Int. J. of Food Sci. and Nutr., 59(1), 11-23.
- Astawan, M. 2009. *Sehat dengan Hidangan Kacang dan Biji-Bijian*. Bogor: Penebar Swadaya.
- Barzaghi. 1999. *Carboxyethylcellulose*. <http://www.barzaghi.com/eng-prodotti-sc.htm> (23 November 2009).
- Belitz, H. D., W. Grosch, dan P. Schieberle. 2009. *Food Chemistry 4th revised and extended edition*. Germany: Springer-Verlag Berlin Heidelberg.
- Bennion, E. B. dan G. S. T. Bamford 1997. *The Technology of Cake Making 6th edition*. London: Blackie Academic 7 Professional.
- Changngern, C. dan O. Suriyaphan. 2009. *Texture and Sensory Qualities of Steam Cake Containing Soy Protein Isolate*. Department of Food Science, Faculty of Science, Burapha University, Chonburi 20130, Thailand.
- Cauvain, S. P. dan L. S. Young. 2006. *Baked Products: Science, Technology, and Practice*. Oxford: Blackwell Publishing Ltd.
- Coulter, T. P. 2009. *Food: The Chemistry of Its Components*. Cambridge: Royal Society of Chemistry.
- Desrosier, N. W. 1988. *Technology of Food Preservation*. AVI Publishing Company, Inc.

- Direktorat Gizi Departemen Kesehatan Republik Indonesia. 1996. *Daftar Komposisi Bahan Makanan*. Jakarta: Bhratara.
- Drewnowski, A. 1992. *Sensory Properties of Fats and Fat Replacements*. Nutr. Rev., 50(4),17-20.
- Eliasson, A. C. 2004. *Starch in Food: Structure, Function, and Applications*. Boston: Wodhead Publishing Limited.
- Endres, J. G. 2001. *Soy Protein Product: Characteristics, Nutritional Aspects, and Utilization*. USA: AOCS Press and The Soy Protein Council.
- Fedderson, R. L. dan S. N. Thorp. 1993. *Industrial Gums 3rd edition*. New York: Academic Press.
- Figoni, P. 2008. *How Baking Works: Exploring the Fundamentals of Baking Science 2nd edition*. USA: John Wiley and Sons, Inc.
- Figoni, P. 2010. *How Baking Works 3rd edition*. New Jersey: John Wiley and Sons, Inc
- Flores, R. 2008. *Popular Cake Types*. <http://ezinearticles.com/?Popular-Cake-Types&id=1426855> (19 November 2009).
- Gisslen, W. 2005. *Professional Baking 4th edition*. USA: John Wiley and Sons, Inc.
- Goesaert, H., T. Leman, dan J. A. Delcour. 2008. *Model Approach to Starch Functionally in Bread Making*. J. Agric. Food Chem. CCC: S40-75.
- Guerrero-Legarreta, I., A. D. Alarcón-Rojo, dan Y. H. Hui. 2009. *Handbook of Poultry Science and Technology, Primary Processing*. New Jersey: John Wiley and Sons, Inc.
- Hartomo, A.J. dan M. C. Widiatmoko. 1993. *Emulsi dan Pangan Instan Ber-Lesitin*. Yogyakarta: CV Andi Offset.
- Hasenhuettl, G. L. dan R. W. Hartel. 2008. *Food Emulsifiers and Their Applications*. USA: Springer Science + Business Media, LLC.

- Hettiarachchy, N. S. dan G. R. Ziegler. 1994. *Protein Functionality in Food Systems*. New York: Marcel Dekker, Inc.
- Hoogenkamp, H. W. 2005. *Soy Protein and Formulated Meat Products*. Cambridge: CABI Publishing.
- Hubbell, L., Goodwin D., Samuel L., dan Navder K. V. 2007. *Effect of Soy Protein Isolate on The Textural and Physical Attributes of Gluten-free Muffins Made From Sorghum Flour*. J. of the Am. Diet. Asso., 107, A76.
- Hui, Y. H. 2006. *Handbook of Food Science, Technology, and Engineering Volume 1*. USA: CRC Press.
- Hui, Y. H. 2007. *Handbook of Food Products Manufacturing*. New Jersey: John Wiley and Sons, Inc.
- Insel, P., D. Ross, K. McMahon, dan M. Bernstein. 2010. *Nutrition 4th edition*. Canada: Jones and Barlett Publishers, LLC.
- Kaplan, D. 1998. *Biopolymers from Renewable Resources*. Germany: Springer- Verlag Berlin Heidelberg.
- Kartika, B., P. Hastuti, dan W. Supartono. 1988. *Pedoman Uji Inderawi Pangan*. Yogyakarta: Universitas Gadjah Mada.
- Klein, B. P., A. K. Perry, dan N. Adair. 1995. *Incorporating Soy Proteins into Baked Products for Use in Clinical Studies*. The J. of Nut Nutr., 666S-674S.
- Kramer, A. dan B. A. Twigg. 1970. *Quality Control for The Food Industry: Fundamentals*. USA: The AVI Publishing Company.
- Kristanti, P. 2009. *Pengaruh Penambahan Na-CMC terhadap Sifat Fisik dan Organoleptik Cake Ketan Hitam, Skripsi*, Surabaya: Fakultas Teknologi Pertanian Universitas Katolik Widya Mandala Surabaya.
- Kusuma, P. 2009. *Mengenal Alergi Telur, Penyebab, dan Pencegahannya*. <http://marigaul.com/kesehatan/178-mengenal-dan-mengobati-egg-allergy-alergi-telur.html> (24 Maret 2010).

- Lazaridou, A., D. Duta, M. Papageorgiou, N. Bele, dan C. G. Biliaderis. 2007. *Effects of Hydrocolloids on Dough Rheology and Bread Quality Parameters in Gluten-Free Formulations*. J. Food Eng., 79, 1033-1047.
- Liu, K. 1999. *Soybeans: Chemistry, Technology, and Utilization*. Maryland: Aspen Publishers, Inc.
- Lopez, A. C. B., J. G. P. Accacia, dan G. C. Roberto. 2004. *Flour Mixture of Rice Flour, Corn, and Cassava Starch in The Production of Gluten Free White Bread*. J. of Braz. Arch. of Biol. and Technol., 47 (1), 63-70.
- Luh, B. S. 1991. *Rice: Utilization 2nd edition*. New York: Van Nostrand Reinhold.
- Matz, S. A. 1970. *Cereal Technology*. Westport: The AVI Publishing Company.
- McClements, D. J. 2005. *Food Emulsions: Principles, Practices, and Techniques*. Florida: CRC Press.
- Mine, Y. 2008. *Egg Bioscience and Biotechnology*. New Jersey: John Wiley and Sons, Inc.
- Nantong Sun Green Bio-Tech Co. 2009. *Certificate of Analysis: Isolated Soy Protein*.
- Ognean, C. F., N. Darie, dan M. Ognean. 2006 *Nutritional and Technological Studies about Using Carboxyl-Methyl-Cellulose in Low Calories Bakery*. J. Seria F. Chemia, 9 (1), 89-101.
- Pauling, L. 1988. *General Chemistry*. San Fransisco: W. H. Freeman.
- Riaz, M. N. 2006. *Soy Applications in Food*. USA: CRC Press.
- Roskoski, R. 1996. *Biochemistry*. USA: Elsevier Health Science
- Setiawan, A. 2007. *Na-CMC*. soulkeeper28.files.wordpress.com/2009/01/na-cmc.pdf (31 Oktober 2009).

- Shao-jun, T., J. Pei, dan Y. Bin. 2006. *Effect of Foam Stabilizing Agent on The Foaming Properties of Soy Protein Isolate*. J. of Chi. Oils and Fats, 4, TS21.2.
- Shuangzhi, S., Z. Lizhen, dan W. Xingang. 2008. *A Study on Application of Soybean Protein Isolate in Cake*. J. of Cer. and Feed Ind., 4, TS213.2.
- Sikorski, Z. E. 2002. *Chemical and Functional Properties of Food Components*. London: CRC Press.
- Singh, G. 2010. *The Soybean: Botany, Production, and Uses*. UK: CAB International.
- Stadelman, W. J. dan O. J. Cotterill. 1995. *Egg Science and Technology 4th edition*. Binghamton: The Haworth Press, Inc.
- Stephanie dan R. Jaworski. 2009. *Baking Powder and Baking Soda (Bicarbonate)*. Available at: <http://www.joyofbaking.com/bakingsoda.html> (22 November 2009).
- Sudarmadji, S., B. Haryono, dan Suhardi. 2007. *Analisa Bahan Makanan dan Pertanian*. Yogyakarta: Penerbit Liberty.
- Suhardjito. 2006. *Pastry dalam Perhotelan*. Yogyakarta: CV Andi Offset.
- Taylor, A. J. dan R. Linforth. 2010. *Food Flavor Technology 2nd edition*. Singapura: Blackwell Publishing Ltd
- The Chemical Heritage Foundation*. 2001. *Sucrose-Table Sugar*. <http://www.chemheritage.org/EducationalServices/FACES/glossary/sucrose.htm> (23 November 2009).
- Trisnawati, Ch. Y. dan A. M. Sutedja. 2008. *Peningkatan Kualitas Rice Cake dengan Penambahan Na-CMC dan Defatted Rice Bran*. Laporan Penelitian Surabaya: PPPG Research Project 2007 Lembaga Penelitian dan Pengabdian Masyarakat. Universitas Katolik Widya Mandala Surabaya.

- Turabi, E., G. Summu, dan S. Sahin. 2008. *Optimization of Baking of Rice Cakes in Infrared-Microwave Combination Oven by Response Surface Methodology*. Food Bioproc. Technol., 1, 64-73.
- Vaclavik, V. A., dan E. W. Christian. 2008. *Essentials of Food Science 3rd edition*. New York: Springer Science + Business Media, LLC
- Watson, R. R. 2002. *Egg and Health Promotion*. Iowa: Iowa State Press.
- Wong, P. Y. Y. dan D. D. Kitts. 2003. *A Comparison of the Buttermilk Solids Functional to Nonfat Dried Milk, Soy Protein Isolate, Dried Egg White, and Egg Yolk Powders*. J. Dairy Sci., 86, 746-754
- Xie, Y. R. dan N. S. Hettiarachchy. 1998. *Effect of Xanthan Gum on Enhancing the Foaming Properties of Soy Protein Isolate*. JAOCS, 75 (6), 729-732.
- Yao, J.J., L. S. Wei, dan M. P. Steinberg. 1988. *Water Imbibing Capacity and Rheological Properties of Isolated Soy Proteins*. J. Food Sci., 53, 464-467.
- Zayas, J.F. 1997. *Functionality of Proteins in Food*. Berlin: Springer-Verlag